



Complete Summary

TITLE

Potentially harmful drug-disease interactions in the elderly: percentage of Medicare members 65 years of age and older who have a diagnosis of dementia and a prescription for tricyclic antidepressants or anticholinergic agents.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS® 2009: Healthcare Effectiveness Data & Information Set. Vol. 1, Narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2008 Jul. 90 p.

National Committee for Quality Assurance (NCQA). HEDIS® 2009: Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2008 Jul. various p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of Medicare members 65 years of age and older who have a diagnosis of dementia and a prescription for tricyclic antidepressants or anticholinergic agents concurrent with or after the diagnosis.

This measure is a component of a composite measure. Three separate rates and a combined rate are reported. The other two rates pertain to:

- History of falls and a prescription for tricyclic antidepressants, antipsychotics or sleep agents (see the related National Quality Measures Clearinghouse

[NQMC] summary of the National Committee for Quality Assurance [NCQA] measure [Potentially harmful drug-disease interactions in the elderly: percentage of Medicare members 65 years of age and older who have a history of falls and a prescription for tricyclic antidepressants, antipsychotics or sleep agents](#)).

- Chronic renal failure and prescription for non-aspirin NSAIDs or Cox-2 Selective NSAIDs (see the related NQMC summary of the NCQA measure [Potentially harmful drug-disease interactions in the elderly: percentage of Medicare members 65 years of age and older who have a diagnosis of chronic renal failure and prescription for non-aspirin NSAIDs or Cox-2 Selective NSAIDs](#)).

Note: Members with more than one disease or condition can appear in the measure multiple times (i.e., in each indicator for which they qualify).

RATIONALE

Pharmacotherapy is an essential component of medical treatment for older patients, but medications are also responsible for many adverse events in this group. Almost 90 percent of people 65 years of age or older take at least one medication, significantly more than any other age group. Patient safety is highly important to member health, especially patients who are at increased risk of adverse drug events due to coexisting conditions and polypharmacy. Adverse drug events (ADE) have been linked to preventable problems in elderly patients, such as depression, constipation, falls, immobility, confusion and hip fractures. 30 percent of hospital admissions in elderly patients may be linked to drug-related problems or toxic effects.

PRIMARY CLINICAL COMPONENT

Medication safety; dementia; tricyclic antidepressants; anticholinergic agent

DENOMINATOR DESCRIPTION

Medicare members 67 years of age and older as of December 31 of the measurement year and a diagnosis of dementia or a dispensed dementia medication on or between January 1 of the year prior to the measurement year and December 1 of the measurement year (see the "Description of Case Finding" and the "Denominator Inclusions/Exclusions" fields in the Complete Summary)

NUMERATOR DESCRIPTION

Members from the denominator dispensed an ambulatory prescription for a tricyclic antidepressant or anticholinergic agent on or between the Index Episode Start Date (IESD) and December 31 of the measurement year (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance
Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

National Committee for Quality Assurance (NCQA). The state of health care quality 2008: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2008. 131 p.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Accreditation
Decision-making by businesses about health-plan purchasing
Decision-making by consumers about health plan/provider choice
External oversight/Medicare
Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Managed Care Plans

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Age greater than or equal to 65 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

- One in 20 prescriptions filled by the elderly are for drugs classified as "always avoid"; more than 1 in 10 are for drugs that would rarely be considered appropriate.
- Studies have found that 21 to 37 percent of elderly patients filled at least one potentially inappropriate prescription and more than 15 percent filled at least two.

EVIDENCE FOR INCIDENCE/PREVALENCE

Curtis LH, Ostbye T, Sendersky V, Hutchison S, Dans PE, Wright A, Woosley RL, Schulman KA. Inappropriate prescribing for elderly Americans in a large outpatient population. Arch Intern Med 2004 Aug 9;164(15):1621-5. [36 references] [PubMed](#)

Simon SR, Chan KA, Soumerai SB, Wagner AK, Andrade SE, Feldstein AC, Lafata JE, Davis RL, Gurwitz JH. Potentially inappropriate medication use by elderly persons in U.S. Health Maintenance Organizations, 2000-2001. J Am Geriatr Soc 2005 Feb;53(2):227-32. [PubMed](#)

ASSOCIATION WITH VULNERABLE POPULATIONS

- The elderly face particular challenges in prescription drug use. Expenditures for prescription drugs in the U.S. are disproportionately high among those over 65 years of age. This population is twice as likely as others to experience adverse drug events and seven times as likely to be hospitalized.
- Seniors receiving inappropriate medications are more likely than others to report poor health status at a follow-up visit with their physician.

EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

Families USA. Cost overdose: growth in drug spending for the elderly, 1992-2010. Washington (DC): Families USA; 2000. 2 p.

Fu AZ, Liu GG, Christensen DB. Inappropriate medication use and health outcomes in the elderly. J Am Geriatr Soc 2004 Nov;52(11):1934-9. [PubMed](#)

National Committee for Quality Assurance (NCQA). The state of health care quality 2008: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2008. 131 p.

BURDEN OF ILLNESS

Studies link prescription of inappropriate drugs to higher risk of harmful side effects, hospitalization, increased length of illness, nursing home placement and falls and fractures that can hasten physical, functional and social decline.

See also the "Rationale" field.

EVIDENCE FOR BURDEN OF ILLNESS

Families USA. Cost overdose: growth in drug spending for the elderly, 1992-2010. Washington (DC): Families USA; 2000. 2 p.

Fu AZ, Liu GG, Christensen DB. Inappropriate medication use and health outcomes in the elderly. J Am Geriatr Soc 2004 Nov;52(11):1934-9. [PubMed](#)

Gurwitz JH, Field TS, Harrold LR, Rothschild J, Debellis K, Seger AC, Cadoret C, Fish LS, Garber L, Kelleher M, Bates DW. Incidence and preventability of adverse drug events among older persons in the ambulatory setting. JAMA 2003 Mar 5;289(9):1107-16. [PubMed](#)

UTILIZATION

See the "Rationale" field.

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Staying Healthy

IOM DOMAIN

Safety

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Medicare members 67 years of age and older as of December 31 of the measurement year who were enrolled as of December 31 of the measurement year with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment and a diagnosis of dementia or a dispensed dementia medication on or between January 1 of the year prior to the measurement year and December 1 of the measurement year

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Medicare members 67 years of age and older as of December 31 of the measurement year and a diagnosis of dementia (refer to Table DDE-E in the original measure documentation for codes to identify dementia) or a dispensed dementia medication (refer to Table DDE-F in the original measure documentation) on or between January 1 of the year prior to the measurement year and December 1 of the measurement year

Exclusions

Unspecified

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Encounter
Institutionalization
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Members from the denominator dispensed an ambulatory prescription for a tricyclic antidepressant (refer to Tables DDE-C in the original measure documentation) or anticholinergic agent (refer to Tables DDE-G in the original measure documentation) on or between the Index Episode Start Date (IESD)* and December 31 of the measurement year

**IESD*: The earliest diagnosis, procedure or prescription between January 1 of the year prior to the measurement year and December 1 of the measurement year. For an outpatient claim/encounter, the IESD is the date of service; for an inpatient claim, the IESD is the discharge date; and for dispensed prescriptions, the IESD is the dispense date.

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data
Pharmacy data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure**SCORING**

Rate

INTERPRETATION OF SCORE

Better quality is associated with a lower score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Potentially harmful drug-disease interactions in the elderly (DDE).

MEASURE COLLECTION

[HEDIS® 2009: Healthcare Effectiveness Data and Information Set](#)

MEASURE SET NAME

[Effectiveness of Care](#)

MEASURE SUBSET NAME

[Medication Management](#)

DEVELOPER

National Committee for Quality Assurance

FUNDING SOURCE(S)

Unspecified

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

In order to fulfill National Committee for Quality Assurance's (NCQA's) mission and vision of improving health care quality through measurement, transparency and accountability, all participants in NCQA's expert panels are required to disclose potential conflicts of interest prior to their participation. The goal of this

Conflict Policy is to ensure that decisions which impact development of NCQA's products and services are made as objectively as possible, without improper bias or influence.

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2006 Jan

REVISION DATE

2008 Jul

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: National Committee for Quality Assurance (NCQA). HEDIS 2008. Healthcare effectiveness data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2007 Jul. various p.

SOURCE(S)

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MEASURE AVAILABILITY

The individual measure, "Potentially Harmful Drug-Disease Interactions in the Elderly (DDE)," is published in "HEDIS® 2009. Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications."

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

COMPANION DOCUMENTS

The following is available:

- National Committee for Quality Assurance (NCQA). The state of health care quality 2008: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2008. 131 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

NQMC STATUS

This NQMC summary was completed by ECRI Institute on April 18, 2008. The information was verified by the measure developer on May 30, 2008. This NQMC summary was updated by ECRI Institute on March 20, 2009. The information was verified by the measure developer on May 29, 2009.

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